

ABSTRACT

A method of manufacturing a semiconductor device, comprises:
forming a semiconductor element in a semiconductor active region, and
5 calculating the generation rate of electron hole pairs generated due to impact
ionization caused in the semiconductor element; calculating a volume
integral of the generation rate at least in an area where the impact
ionization is caused; evaluating time - dependent degradations of electrical
characteristics of the semiconductor element on the basis of the volume
10 integral; and manufacturing a semiconductor device on the basis of the
evaluation.